

Work Order ID 98773

March-25-13 7:52:33 AM

98773

Page 1

Item ID: D3034-3

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Bearpaw

Stop

NS2

Start Date: 3/25/13

Start Qty: 8.00

8

Cust Item ID:

Required Date: 4/08/13

Req'd Qty: 8.00

8

Customer:

Reference:

Approvals: Process Plan: MLS

Date: 3-03-25 Tooling:

Date:

Run Start

NR1

QC:

Date: _____ SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
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D3034	REV C
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120	0.00
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120	FLOW WATER JET
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Waterjet	Memo	0.00
----------	------	------

FLOW CNC Waterjet	CUT BLANK AS PER FILE D3034	BLANK
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UHMW 1.25"		
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130	0.00
-----	------

130	HAAS CNC VERTICAL MACHINING #1
-------	--------------------------------

HAAS 1	Memo	0.00
--------	------	------

HAAS CNC vertical machine #1		
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1- Mill as per Folio FB109

Folio Rev: A

Dwg D3034 Rev: C

2-Deburr per dwg D3034

*D4
02/25
88*

*04/25
2013-04-25*

13-04-24

12

0

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION			AGAINST DEPARTMENT/PROCESS										
Part No. _____		Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>									
NCR No. _____		Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>									
		Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>									
		Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>										
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector					
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions							<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other			<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

Work Order ID 98773

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Page 2

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8

Cust Item ID:

Required Date: 4/08/13 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

140

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

D4S

02

RT

89

12

13-04-24

04/04/2013-04-25

150

150

QC

Quality Control

QC8- Inspect parts - second check

0.00

04/10/2013-04-28

12

0

Memo

0.00

151

Identify as per dwg & Stock Location: ST269 0.00

151

Packaging

Packaging

Memo

0.00

4X

SP-29

8x PPP98780

== 12X

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION			AGAINST DEPARTMENT/PROCESS						
Part No. _____		Rework	<input type="checkbox"/>	Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering	<input type="checkbox"/>
NCR No. _____		Scrap	<input type="checkbox"/>	Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality	<input type="checkbox"/>
		Use-as-is	<input type="checkbox"/>	Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other	<input type="checkbox"/>
		Work Order Update	<input type="checkbox"/>	Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>		
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
			Bending	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced	<input type="checkbox"/>	
Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure	<input type="checkbox"/>				
Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld	<input type="checkbox"/>				
Crushed/Crimped	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled	<input type="checkbox"/>				
Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>		<input type="checkbox"/>				
Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>		<input type="checkbox"/>				
Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other	<input type="checkbox"/>				
Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>				
Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>				
Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>				
Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>				

Work Order ID 98773

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Page 3

Item ID: D3034-3

Accept

N900040100

Setup

Start

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Revision ID:

Item Name: Bearpaw

Stop

NS2

Start Date: 3/25/13 Start Qty: 8.00

8

Cust Item ID:

Required Date: 4/08/13 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

13/5/6 2013

190

QC

Memo

0.00

MF

Quality Control

13-4-29

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No. _____		Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____		Use-as-is <input type="checkbox"/>	Work Order Update <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
				Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
				Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General						
				<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced			
				<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure			
				<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld			
				<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled			
				<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved				
				<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong				
				<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other			
				<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset					
				<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration					
				<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence					
				<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions					

Picklist Print

March-25-13 7:52:37 AM

Page 1

Work Order ID: 98773

98773

Parent Item: D3034-3

D3034-3

Parent Item Name: Bearpaw

Start Date: 3/25/13

Required Date: 4/08/13

Start Qty: 8.00

Required Qty: 8.00

Comments: IP REV:A NEW ISSUE 12-04-12 JLM VERIFIED BY:DD
REV:B NOW 1.25" MAT 12-10-15 JLM VERIFIED BY:DD

IPP

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB1.250		Purchased	No				sf	240.0000	**	<u>2228</u>	<u>50</u>		

M1 UHMWB1 250

UHMWB 1.250 BLACK

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT019	240	
123290	240	<u>123290</u>

Jm13-4-16

NCR: Yes / No

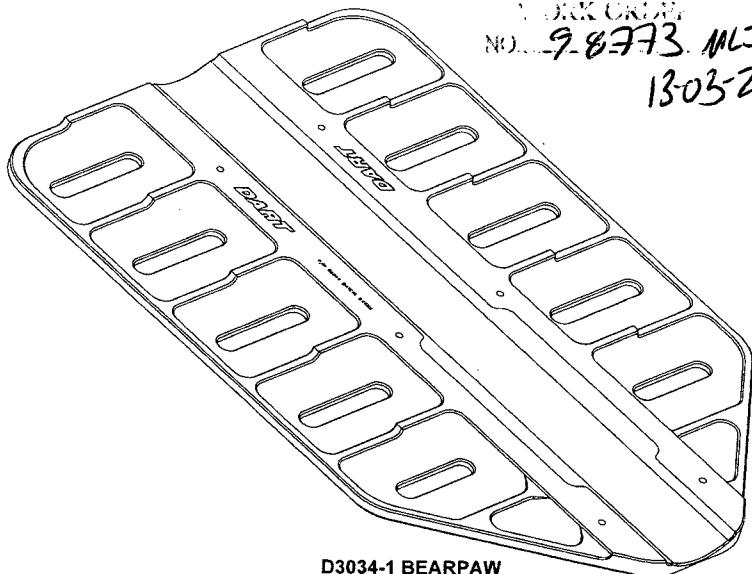
DQA: Date:

WORK ORDER NON-CONFORMANCE / UPDATE

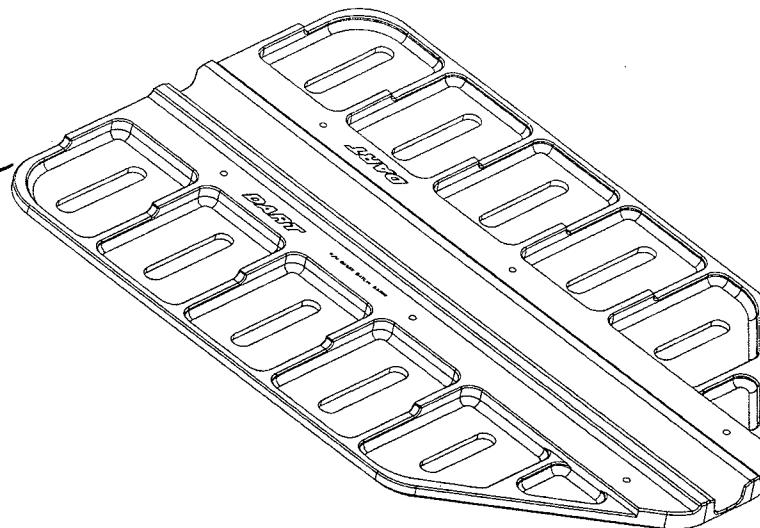
QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS									
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>							
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector			
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	
												<input type="checkbox"/> Other			

SP
 ENGINE
 UNCONTR
 SERVICED
 NO. 9-8773. M5
 130525



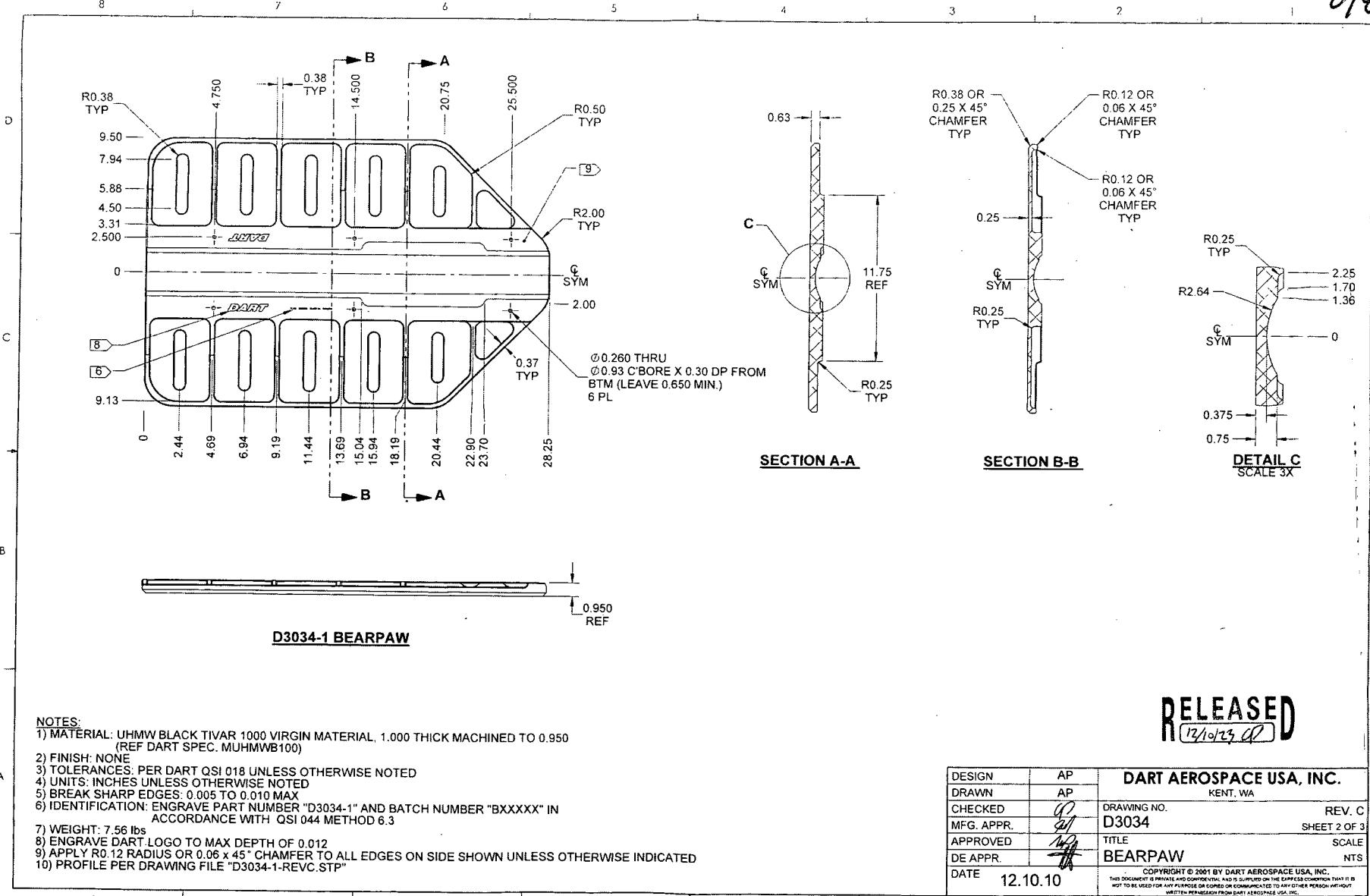
D3034-1 BEARPAW



D3034-3 BEARPAW

RELEASED
 12/10/23
 ECN 12-671

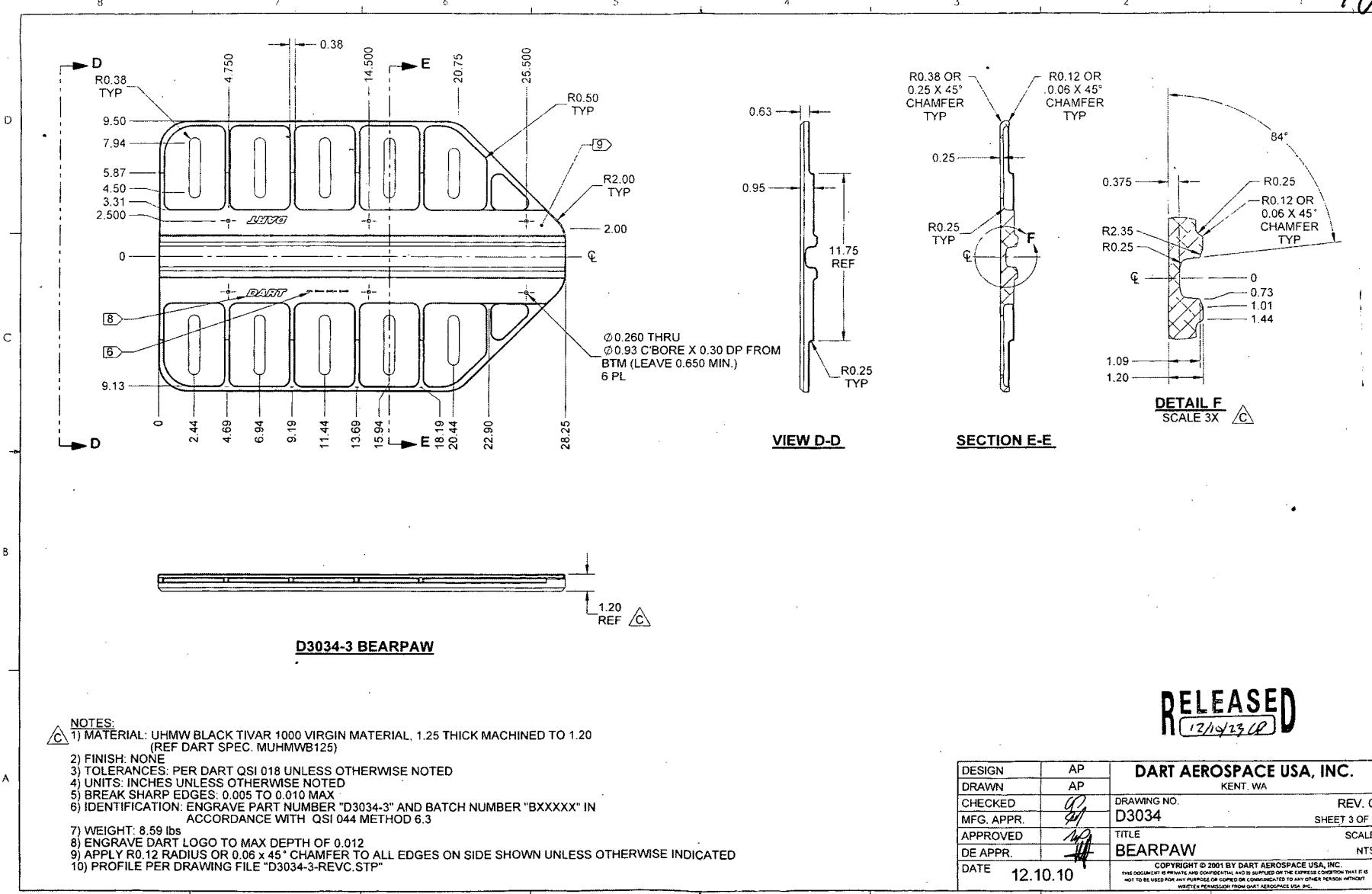
C	MATERIAL THICKNESS WAS 1.00 FOR D3034-3, NOW 1.250 (A8-3). MIDDLE SECTION OF D3034-3 BEARPAW MODIFIED (C2-3)		AP	12.10.10
B	UPDATE FORMAT: ADD D3034-3; UPDATE NOTE 1 AND ADDED NOTES 8 & 9 (SHEETS 2 & 3)		AP	12.04.13
A	NEW ISSUE		CP	01.06.21
REV.	DESCRIPTION		BY	DATE
DESIGN	AP	DART AEROSPACE USA, INC. KENT, WA		
DRAWN	AP			
CHECKED	99	DRAWING NO.		
MFG. APPR.	99	D3034	REV. C SHEET 1 OF 3	
APPROVED	10/10/10	TITLE	SCALE NTS	
DE APPR.	10/10/10	BEARPAW		
DATE	12.10.10	COPYRIGHT © 2011 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.		



RELEASED 12/10/10

DESIGN	AP	DART AEROSPACE USA, INC.	
DRAWN	AP	KENT, WA	
CHECKED	<i>GD</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>GD</i>	D3034	SHEET 2 OF 3
APPROVED	<i>GD</i>	TITLE	SCALE
DE APPR.	<i>GD</i>	BEARPAW	NTS
DATE	12.10.10	COPYRIGHT © 2001 BY DART AEROSPACE USA, INC. THIS DOCUMENT CONTAINS TRADE SECRETS AND MAY NOT BE COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

98773

RELEASED
12/14/2010

DESIGN	AP	DART AEROSPACE USA, INC.	
DRAWN	AP	KENT, WA	
CHECKED	AP	DRAWING NO.	REV. C
		D3034	SHEET 3 OF 3
MFG. APPR.	AP	TITLE	SCALE
APPROVED	AP	BEARPAW	NTS
DE APPR.	AP		
DATE	12.10.10		

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DART AEROSPACE LTD		Work Order:	98773
Description: Bearpaw		Part Number:	D3034-3
Inspection Dwg:	D3034	Rev:	C

Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.500	+/-0.010	2.501	✓		uwm	BT-4
3.31	+/-0.030	3.310	✓		Type	BT-10
5.87	+/-0.030	5.870	✓		"	"
9.50	+/-0.030	9.500	✓		"	"
4.750	+/-0.010	4.752	✓		uwm	
0.38	+/-0.030	0.375	✓		"	
14.500	+/-0.010	14.500	✓		Type	
25.500	+/-0.010	25.500	✓		"	
28.25	+/-0.030	28.250	✓		"	
0.63	+/-0.030	0.634	✓		uwm	
11.75	+/-0.030	11.750	✓		Type	
0.95	+/-0.030	0.960	✓		uwm	
0.25 x 45°	+/-0.030 x -0.05°	0.256	✓		"	
0.06 x 45°	+/-0.030 x -0.05°	0.065	✓		"	
0.25	+/-0.030	0.260	✓		"	
0.375	+/-0.010	0.376	✓		"	
0.73	+/-0.030	0.724	✓		"	
1.01	+/-0.030	1.005	✓		"	
1.44	+/-0.030	1.463	✓		"	
1.20	+/-0.030	1.209	✓		"	
1.09	+/-0.030	1.087	✓		"	
Ø0.260	+0.006/-0.001	0.260	✓		"	
Ø0.930	+/-0.030	0.936	✓		"	
0.30	+/-0.030	0.302	✓		"	

Measured by:	DAE	Audited by:	DK	Preliminary Approval:	
Date:	13-04-24	Date:	13/04/28	Date:	

Rev	Date	Change	Revised by	Approved
A	13.03.07	New Issue	KJ	AA

